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Mr. Chairman and members of the Committee, thank you for the opportunity to testify regarding the Department of Agriculture's (USDA) extensive efforts to protect U.S. poultry from avian influenza. Our efforts over the years, in cooperation with many Federal, State, and industry partners, have been highly successful in preventing serious incursions of this disease from abroad and, when necessary, taking swift action to control and eradicate discoveries in the United States.

As has been reported, H5N1, a highly pathogenic strain of avian influenza, has been spreading across poultry populations in several Southeast Asian countries, Russia and eastern European countries in recent months. There have also been documented cases of the virus affecting humans who have been in direct contact with sick birds. There is worldwide concern that the H5N1 virus might mutate, cross the species barrier and touch off a human influenza pandemic.

With this in mind, USDA's poultry health safeguarding programs are more important than ever. These programs are based on preventative regulatory and anti-smuggling measures designed to mitigate the risk of the virus entering the United States; targeted, aggressive disease surveillance in domestic poultry; and emergency response capabilities that ensure coordinated action with our partners in the event of detection. We take these responsibilities very seriously, and have bolstered all the components of our safeguarding program in response to the evolving avian influenza situation overseas.

We also believe it is critical to effectively address the disease in the poultry population in Southeast Asia. Implementation of effective biosecurity measures and control and eradication programs will go a long way toward reducing the amount of virus in these H5N1-affected countries and minimize the potential for the virus to spread to poultry in other areas of the world. These actions, if effectively implemented, would diminish the potential for a human influenza pandemic.

I have traveled extensively in Southeast Asia in an effort to evaluate the animal health infrastructure in Southeast Asia and determine what steps can be taken to improve disease safeguarding and surveillance programs in the region. I can report that there is widespread concern in Asia regarding avian influenza, as well as a strong commitment to working with the international community to address the disease and improve the animal health infrastructure in countries like Vietnam, Cambodia, Laos, Indonesia and Thailand. This is why it is imperative that the United States remains engaged and share resources and expertise with officials in these countries. I have also just returned from a United

Nations World Health Organization meeting on avian influenza in Geneva, Switzerland. It is clear this is an international effort.

Now let me turn to preparedness efforts here in the United States. The National Strategy for Pandemic Influenza, announced by President Bush on November 1, reflects the importance of these proactive measures on the animal health front. The President requested $91.35 million in emergency funding for USDA to further intensify its surveillance here at home and to deliver increased assistance to countries impacted by the disease, in hopes of preventing further spread of avian influenza.

On the international front, $18.35 million of the emergency funding for USDA is needed for additional bisosecurity, surveillance, and diagnostic measures. This funding would significantly advance USDA's efforts that build on the Food and Agriculture Organization's work to prevent, control and eradicate avian influenza where it currently exists in Asia.

To continue strengthening our domestic activities, $73 million of the USDA emergency funding is needed for stockpiling animal vaccine, surveillance and diagnostics, anti-smuggling and investigative efforts, research and development, planning and preparedness and staffing and management. The objective of all these efforts will be to prevent, control and eradicate any future findings of the H5 and H7 strains of avian influenza in the U.S. commercial broiler and live bird marketing system.

This is just a brief overview of what is an important request to Congress by the Administration. We appreciate your support of our efforts and look forward to working with the Congress as it considers the President's emergency funding request for pandemic influenza.

Now, I would like to turn to information on avian influenza necessary for our discussion regarding the disease, its potential effects on poultry in the United States, the steps USDA is taking to look for the disease and prepare for any detection, trade related matters, and some important food safety information of which we should always be aware.

Background on Avian Influenza

Avian influenza viruses are actually in the same family of viruses that cause flu in people every year. There is a flu season every year in birds, just as there is a flu season for humans. And as you would expect, some forms of avian influenza are more severe than others.

Avian influenza viruses can infect chickens, turkeys, pheasants, quail, ducks, geese, and guinea fowl as well as other varieties of birds, including migratory waterfowl. Transmission of the virus from one bird to another occurs through direct contact—typically through contact with respiratory secretions or feces.

Worldwide, there are many strains of the avian influenza virus, which again can cause varying degrees of illness in poultry. These viruses are characterized by two

different proteins on the surface of the virus. One is called hemaglutinin, or H for short, and the other one is a neuraminidase protein, or N for short. There are 16 known H proteins and 9 known N proteins, for a possible combination of 144 different characterizations of virus.

With regard to birds, avian influenza viruses are further divided into two groups—low pathogenic avian influenza, or low path, and highly pathogenic, or high path, viruses.

Pathogenesis refers to the ability of the virus to produce disease, with the highly pathogenic viruses producing far more severe clinical signs and higher mortality in birds than you would expect with the low pathogenic avian influenza virus.

Low pathogenic avian influenza has been identified in the United States and around the world since the early 1900s. It is relatively common to detect low pathogenic, just as human flu viruses are a common finding in people. However, most avian influenza viruses found in birds do not pose any significant health risk to humans.

Highly pathogenic avian influenza (HPAI) has been found in poultry in the United States three times—1924, 1983 and 2004. The 1983 outbreak was the largest, ultimately resulting in the destruction of 17 million birds in Pennsylvania and Virginia before that virus was finally contained and eradicated. By contrast, an isolated HPAI incident in a flock of 6,600 birds in Texas was quickly found and eradicated in 2004. There were no reports of human health problems in connection with any of those outbreaks.

In domestic poultry, the greatest concern has been infections with H5 or H7 strains, which are either highly pathogenic or low pathogenic avian influenza. The low pathogenic H5 and H7 viruses are always of a concern because of their potential to mutate to the highly pathogenic version of the disease.

Again, speaking strictly with regard to birds, only H5 and H7 subtypes of the avian influenza viruses have ever been shown to be highly pathogenic. The most recent outbreaks in the United States that I just mentioned both happened to be H5N2 viruses. The virus that is currently circulating in Asia is an H5N1 virus.

As I mentioned earlier, this particular H5N1 virus is also unique in that it has been transmitted from birds to humans, most of who had reported extensive direct contact with infected birds. I think it is important to emphasize, however, that there is no evidence at this time that the H5N1 virus that is currently circulating in Asia is in the United States, either in birds or humans.

Safeguarding Efforts

The Federal Government is actively engaged in the global effort to help eradicate highly pathogenic avian influenza (HPAI). The primary goal of this effort is to minimize any potential threat to human or animal health. USDA has been working closely with the U.S. Agency for International Development (USAID) to support animal health intervention in infected countries to establish safer, science-based agricultural practices in order to meet internationally accepted animal health standards and to facilitate trade.

Safer agricultural practices can result in greater food safety, food security, and public health improvement. By helping these countries prepare for, manage, or eradicate outbreaks, USDA can reduce the risk of high pathogenic avian influenza or other animal diseases spreading to the United States.

USDA is also engaged in an interagency working group with the Department of Interior that will use modeling to evaluate the role of wildlife in foreign animal disease threats. The initial diseases of focus will be foot and mouth disease and avian influenza.

Furthermore, USDA and other federal agencies are communicating and collaborating with federal public health agencies, including the Centers for Disease Control (CDC) in the Department of Health and Human Services, regarding avian influenza prevention, preparedness, and response activities and programs. Avian influenza demonstrates the need for increasing the links between animal and human health agencies, domestically and internationally, to respond to emerging infectious diseases at the animal/human interface.

There are other important efforts USDA has employed to keep the H5N1 virus and others out of the United States. As a primary safeguard, the Department's Animal and Plant Health Inspection Service (APHIS) maintains trade restrictions on the importation of live poultry, birds and unprocessed poultry products from all affected countries. Heat-treated poultry meat and eggs from countries with high pathogenic avian influenza (HPAI) are considered eligible for importation from countries with equivalent meat inspection systems. Imports of live birds, poultry and unprocessed poultry products, may resume after APHIS has completed a regionalization analysis that identifies the entire country or zone within the affected-country as disease-free.

APHIS' Smuggling, Interdiction, and Trade Compliance teams, as well as our colleagues with the Department of Homeland Security's Customs and Border Protection, have been alerted and are vigilantly on the lookout for any poultry or poultry products that might be smuggled into the United States from any of the affected countries.

Additionally, USDA quarantines and tests imported live birds from countries not known to have cases of infection to make sure that pet birds and other fowl do not inadvertently introduce disease into the United States.

We also have an ongoing surveillance program that targets avian influenza and other serious diseases in commercial flocks. The idea of surveillance is simply that if avian influenza is here, we want to find it very quickly and then respond to eliminate it. Early detection and rapid response are the keys to minimize the impact on our poultry production as well as minimize any impact with regard to trade restrictions.

APHIS conducts more than one million tests a year for avian influenza. USDA's Agricultural Research Service developed—and APHIS validated—a rapid test for avian influenza that has proven highly effective in screening for the disease. The test has been distributed to National Animal Health Laboratory Network labs all across the country.

The rapid test also supports our targeted surveillance efforts at live bird markets in the northeastern United States. USDA has also been working closely with the State Agricultural Departments and industry representatives to increase surveillance at these markets in recent years. This cooperative program is designed to prevent, diagnose and, if found, eliminate any of the H5 or H7 subtypes of virus in those markets.

I would be remiss if I did not mention the outstanding support of the U.S. commercial poultry industry in terms of producers' vigilance in applying and adhering to good biosecurity practices on the farm. Biosecurity simply means applying some very practical, common sense measures to keep from bringing unwanted germs onto the farm or into the poultry houses.

I also want to emphasize that for the last several years APHIS has conducted a major outreach campaign called "Biosecurity for the Birds." The campaign places informational materials directly into the hands of commercial poultry producers, as well as those raising poultry in their backyards. All of the brochures and fact sheets are available in several languages and emphasize the need for good biosecurity and disease surveillance programs to reduce the possibility of bringing any disease, not just avian influenza, on the farm or into their back yard.

The Department of the Interior is responsible for managing wildlife, including migratory birds under various laws such as the Migratory Bird Treaty Act, and for ensuring public health on the more than 500 million acres of land that it manages across the country. To carry out these responsibilities, biologists within the Department of Interior's Fish and Wildlife Service and U.S. Geological Survey have been strategically sampling migratory birds for H5N1 in the Pacific Flyway.

These efforts complement a series of ongoing avian influenza studies being conducted by USDA's Agricultural Research Service (ARS) and its university partners in Alaska where birds that regularly migrate between Asia and North America are known to congregate. The ARS seven-year collaboration with the University of Alaska has evaluated over 12,000 Alaskan samples and to date has found no evidence of high pathogenic avian influenza virus.

APHIS' Wildlife Services (WS) has also provided assistance to minimize threats to the public and animal health through its National Wildlife Disease Surveillance and Emergency Response Plan. Recently, WS has worked closely with Texas, North Carolina, New Jersey, Arizona and Nevada to conduct sampling of waterfowl, geese, and exotic birds for avian influenza.

Emergency Response

USDA has in place a robust emergency response program designed to complement our surveillance efforts. When we have unexpected poultry, or for that matter livestock, illnesses or deaths on a farm, we immediately conduct a foreign animal disease investigation. We have a cadre of specially trained veterinarians who can be on site within four hours to conduct an initial examination and submit samples for laboratory testing.

As the Committee knows, APHIS is not new to disease incursions and successful eradication efforts. In conjunction with our State colleagues, there are State-level emergency response teams on standby. These teams will typically be on site within 24 hours of a presumptive diagnosis of avian influenza or any other significant foreign animal disease. Destruction of the affected flocks would be our primary concern and course of action. We would also likely immediately work with State or tribes to impose State-level quarantines and movement restrictions.

For highly pathogenic avian influenza as well as for low pathogenic H5 and H7 subtypes, APHIS would work with States to quarantine affected premises and clean and disinfect those premises after the birds have been depopulated and disposed. All positive HPNAI flocks would be depopulated and meat from affected flocks would not enter the animal or human food chain. Surveillance testing would also be conducted in the quarantine zone and surrounding area to ensure that the virus has been completely eradicated. An essential part of a successful emergency response program is effective communication with the media and the public. This is especially important given the concern right now regarding avian influenza and potential risks to human health. To be prepared in the event of a detection—whether it be high pathogenic or low pathogenic avian influenza—USDA has been coordinating with its counterparts at other Federal agencies, State Agriculture Departments, and industry organizations to ensure consistent messages regarding the strain of the disease found, the steps being taken in response, and the potential effects to poultry and, if appropriate, human health. In fact, USDA will be participating in a government-wide tabletop exercise with a focus on avian influenza. Coordination will be vital to our ability to deliver important information, while maintaining public confidence in, among other things, the food supply and public health system.

USDA also maintains a bank of avian influenza vaccines for animals in the event that the vaccine would be a preferred course of action in any outbreak situation. I need to stress here, however, that wide-scale vaccination of poultry is not an effective safeguard against avian influenza. Rather, animal vaccination could be used in response to a detection of the disease in the United States to create barriers against further spread and assist with our overall control and eradication measures.

Funding included in the emergency request would augment the current animal vaccine bank by an additional 40 million doses. This expansion to the animal vaccine bank would be critical in the event of a large-scale avian influenza situation in the United States.

Trade Issues

As we know, outbreaks of significant foreign animal diseases are extremely costly in terms of domestic control and eradication efforts. However, we have seen that lost export markets can be even more damaging to the U.S. economy. As part of its planning to address avian influenza, then, APHIS has taken a lead role in facilitating international consideration of new trade standards for AI. For example, USDA actively supported the drafting of an improved World Animal Health (OIE) standard for avian influenza adopted

in May 2005. Under the recently amended OIE guidelines, OIE members are obligated to report any positive NAI…or Notifiable Avian Influenza (NAI) test result. This includes the reporting of all highly pathogenic strains of AI, as well as the H5 and H7 subtypes of low pathogenic AI detected in commercial poultry flocks.

Notifiable avian influenza-related trade restrictions on poultry products should be limited to the affected "zone", e.g. country, state, region, or "compartment," e.g. isolating commercial poultry from migratory waterfowl or wildlife. The OIE does not recommend trade restrictions for non-H5 or H7 low pathogenic subtypes.

Properly cooked meat and pasteurized egg products are considered safe-to-trade products and are safe for human consumption. Since heat has shown to destroy the virus, the OIE recently proposed draft guidelines for inactivating the virus using heat-treatments.

APHIS continues to work with its trading partners to promote the application of the new OIE standard. As just one case in point, intensive negotiations resulted in Mexico's recent agreement to lift all remaining import restrictions on States that have reported cases of low pathogenic avian influenza in recent years.

The detection of high pathogenic avian influenza in Texas in 2004 led to the closure of several export markets to U.S. poultry and poultry products. However, in that case APHIS worked to not only control and eradicate the disease, but to demonstrate to trading partners that the measures put in place were effective in controlling and eradicating the virus. APHIS urged trading partners to regionalize the United States for the disease, effectively allowing trade in poultry and products to continue from unaffected areas. These efforts were successful in reopening export markets.

Under prevailing international trade agreements, U.S. trading partners are obligated to consider a regionalization request from USDA, and countries must base their decisions on sound, demonstrable scientific grounds. The United States would certainly do this in response to a regionalization request from another country, and we expect—and will hold—other countries to this same standard should high pathogenic avian influenza be detected again in this country.

Food Safety

If high pathogenic avian influenza were to be detected in the United States, I want to emphasize that the U.S. surveillance system would find the disease, and our emergency response system would quickly contain the outbreak while eradication efforts begin. The chance that infected poultry would ever enter the human food chain would be extremely low. That is in part because we have inspection personnel from USDA's Food Safety and Inspection Service assigned to every Federally inspected meat, poultry and egg product plant in the United States. Poultry products for public consumption are inspected for signs of disease both before and after slaughter. The "inspected for wholesomeness by the

U.S. Department of Agriculture" seal ensures that this poultry is free from visible signs of disease.

No human cases of avian influenza have been confirmed from eating properly prepared poultry. In addition to proper processing in the plants, proper handling and cooking of poultry provides protection from viruses and bacteria including avian influenza.

I want to reiterate that proper food safety practices are important every day. USDA reminds consumers each day—and especially as we look ahead to Thanksgiving—that there are basic food safety steps to follow. It applies to any raw meat, poultry, or fish. That is clean, separate, cook, and chill.

By clean we mean always wash your hands with warm water and soap for at least 20 seconds. After cutting raw meats, wash cutting board, knife, and counter tops with hot, soapy water. By separate we mean do not cross-contaminate. Keep raw meat, poultry, fish and their juices away from other foods.

Cooking the meat and poultry to the proper temperatures using a food thermometer is the only sure way to know that you have cooked that product properly. A high enough temperature will destroy bacteria and viruses in poultry products. USDA specifically recommends cooking ground turkey and chicken to a temperature of 165 degrees Fahrenheit; cook chicken and turkey breasts to 170 degrees Fahrenheit; and whole birds, legs, thighs and wings to 180 degrees Fahrenheit. Obviously, never consume raw or undercooked poultry or poultry products.

And then chill meat products promptly after serving in the refrigerator. Always refrigerate perishable foods within two hours of taking it out of the refrigerator or having prepared it by proper cooking. Whole roasts, hams, and turkeys should be sliced or cut into smaller pieces or portions before storing them in the refrigerator or freezer. Turkey legs, wings, and thighs may be left whole. Refrigerate or freeze leftovers in shallow containers. Wrap or cover the food. And as a reminder, refrigerators should be at 40 degrees Fahrenheit or lower, and freezers should be at zero degrees Fahrenheit or lower.

You should also use cooked leftovers after Thanksgiving within three to four days to be safe.

Consumers with questions about the safe storage, handling, or preparation of meat, poultry, and egg products can contact the USDA Meat and Poultry Hotline at 1-800-MP-Hotline, that is 1-800-674-6854. The hotline is available in English and Spanish and can be reached from 10:00 a.m. to 4:00 p.m. Eastern Standard Time, Monday through Friday. Consumers may also check out our website at www.fsis.usda.gov to ask our virtual representative questions 24 hours a day.

Conclusion

Mr. Chairman and members of the Committee, thank you again for holding this hearing and allowing me to provide this important overview regarding avian influenza. I have covered a lot of ground in my remarks and will be happy to answer your questions.